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ABSTRACT

This longitudinal study examined the differences between extremely popular children and their peers, and the persistence of the patterns of differences. Teachers identified 19 extremely popular children in kindergarten through sixth grade. These students were compared with 38 randomly selected children from the teachers' classes. A multitrait-multimethod analysis demonstrated that teachers accurately chose extremely popular children. Independent observer and peer nominations, but not student self-ratings, confirmed teacher accuracy. Popular children tended to be more adept in intellectual ability, social-emotional control, social skills, and physical competence. Six years later, the 10 extremely popular students and 9 randomly selected students still in the schools were reexamined. When compared to their classmates in secondary school, the extremely popular children were still popular but did not maintain the extreme popularity they had in grade school. Some teacher ratings from grade school correlated with self-ratings. Peer nominations did not show the same strong patterns of relationships among the various personality characteristics found earlier. (Author/RJC)

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A Longitudinal Study of Extremely Popular Children

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Abstract

Teachers notice that in some of their classes certain students appear to be much more popular than any of the other students. In our study teachers identified 19 such extremely popular children in grade school (kindergarten through sixth grade) and we compared them with two randomly selected children (n=38) in each classroom. A multitrait-multimethod analysis demonstrated that teachers accurately chose extremely popular children. Independent observers and peer nominations, but not student self-ratings, confirmed teacher accuracy. Overall, the popular children tended to be more adept in the areas of intellectual ability, social-emotional control, social skills, and physical competence. Six years later the ten extremely popular and nine randomly selected students still in our schools were re-examined. Relative to the randomly selected students, the extremely popular students retained more popularity. When compared to their current classmates in secondary school, the extremely popular children were still popular but did not maintain the extreme popularity they had in grade school. Some teacher ratings from grade school did correlate with self-ratings in high school. Although the secondary teachers could pick out popular children, the teacher ratings, self-ratings, and peer nominations did not show the same strong patterns of relationships found earlier with the various personality characteristics.

A LONGITUDINAL STUDY OF EXTREMELY POPULAR CHILDREN

Many studies have examined peer popularity in children (Hartup, 1983). In general popularity measured by various techniques is a positive attribute related to specific personality and social characteristics of individual children. Among other characteristics more popular children are considered to be be more cognitively skilled (Selman, 1980), emotionally mature (Bronson, 1966), socially skilled (Adams, 1983; Gottman, Gonso, & Rasmussen, 1975; Rosen, 1961), physically attractive (Byrne, London, & Reeves, 1968; Dion, Berscheid, & Walster, 1972), and for boys physically skilled (Dowell, 1970).

It is not known if there can be too much of a good thing. Extremely popular children have not been studied as a group. In addition, few studies have examined popularity longitudinally for any significant length of time (Bonney 1943; Coie & Dodge, 1983). Extremely popular children may not maintain their earlier extreme popularity from elementary school through high school. In our study we found grade school students thought by teachers to be extremely popular and tested these children to determine what differentiated them from their peers. Six years after the initial study, we again examined these individuals to see if the same patterns persisted.

Method

Subjects

Experienced teachers (average of 10 years teaching) from seven different elementary schools in a large school district nominated present or past students they thought were exceptionally popular. A total of 19 teacher-nominated students (9 boys and 10 girls) were then compared with a randomly selected boy and girl in each of their respective self-contained classrooms. A total of 56 largely middle class to lower middle class children in the first through sixth grades (average age = 10.3 yrs.) participated in the initial study.

Six years later the children remaining in the original school district were contacted again. Due to economic reversals and a highly transient population, only 18 of the original 56 children were still available and would give permission for a repeat participation (10 extremely popular and 8 randomly selected peers). Even though we lost more of the randomly selected children, analysis of these 18 children's scores with the subjects who moved away showed no significant differences. In other words the dropout rate effect on scores was random across both groups and therefore group comparisons between the extremely popular children and the randomly selected children were still justified. By the time of the second testing, the students were in the eighth through twelfth grades. Because the students were not with one teacher all day as in elementary school, two different classrooms and teachers were used for each target student. Thus, data were collected from 38 divergent, but general curriculum, academic classrooms. Due to some data loss 32 classrooms were analyzed in the final study. There was an average of 24 students in each classroom. Collecting data from

the entire classroom allowed us to compare the students with their current peers.

Procedure

A multitrait-multimethod design (Campbell & Fisk, 1959) was followed in this study. Teachers, independent observers (retired school teachers blind to the purpose of the study), and the students themselves used a rating scale designed to evaluate the popularity-determining personality and social characteristics for children. The scale had 41 bipolar items grouped into categories measuring intellectual, social-emotional, social, physical, and affluence characteristics. In addition, a six item peer nomination form was administered to the entire class and the students nominated classmates they though fit the above mentioned personality and social categories best.

In the follow-up, multiple ratings of the students were again obtained. The teachers and the students themselves used a rating scale similar to the original one, but modified to be more appropriate for older adolescents and easier for the teachers to use. Each of the 38 classrooms also completed an eight item peer nomination form similar to the original nomination form used six years earlier. This form asked: "Who in this class do you like best?" "Who do you enjoy being with the most?" "Who in this class is the smartest?" "If you had a choice, who in this class would you chose to study with?" "Who in this class is the prettiest?" "Who in this class is the most handsome?" "Who in this class has the best overall physical ability?" "Who in this class is the most popular?".

Results and Discussion

1. Table 1 shows the basic results of the beginning study (1982). The teachers (TMEAN) were highly accurate in picking out children who were quite different from their randomly selected peers. Not only were the teachers consistent, but also the independent observers (NMEAN) noticed the same characteristics that differentiated the extremely popular children from the randomly selected children in their classrooms. Children's self-ratings (CMEAN) did not seem to differentiate nearly as well. Overall, these ratings indicate that the extremely popular children were more cognitively adept, better at displaying appropriate emotions in social situations, socially skilled, physically attractive, and physically skilled. The sociometric ratings within the classrooms (ST) also show clear distinctions between the two groups of children. The IQ scores were only slightly higher for the extremely popular children. We were surprised at the consistency and agreement of the findings across techniques.

2. Individual differences were looked at in the multitrait-multimethod matrix shown in Table 2. The circled correlations in the matrix confirm the agreement between the teachers and the observers and the lack of agreement with the self ratings by the students. The popular students were rated as being well rounded. In general the categories in the rating scale showed high correlations with each other and cannot be assumed to be measuring completely separate domains.

3. The longitudinal data six years later showed that the extremely popular students were still more popular than the

randomly selected peers. Table 3 shows the ttest comparisons of the teachers' ratings of the various personality item groupings. In comparison to the randomly selected children, the extremely popular children of six years earlier were rated by their new teachers as being significantly more intelligent, socially-emotionally mature, physically attractive/skilled, and popular. There were no differences in the teachers rating of social skills. The sociometric results in Table 3 showed significant differences with the nominations concerning smartness, studying preference, attractiveness, popularity, and the total nomination scores. Again it appears that the differences first observed in the 1982 study remain. Extremely popular children have tended to remain popular and randomly selected, but less popular children, have tended to remain less popular.

4. In order to test whether the two groups have gained or lost in absolute rather than relative popularity, we then compared the sociometric data of our selected sample with the class sociometric data from our 1988 students. Using the one sample t test we compared the average sociometric total scores of the extremely popular students ($\bar{X}$ = 37.6) with the average number of sociometric nominations each student in the classrooms received ($\bar{X}$ = 19.8). The extremely popular children tended to be more popular than the average adolescent in these classes (t= 3.50, $p<.01$). Correspondingly, the randomly selected students' overall sociometric scores ($\bar{X}$ = 11.88) were compared with their classmates ($\bar{X}$ = 19.8). Compared to their classmates, these originally random selections tended to be less popular (t = 2.34, $p< .1$), closely approaching the traditional $p<.05$ level of significance (critical value of t = 2.365). Perhaps this lower popularity shows there was some selective subject loss that did not show up in our overall analysis of trends. To see if the extremely popular children had true popularity, we compared them with the top five vote getters in each class. In the original study the extremely popular children were the top receivers of nominations in every class. This was not true in the junior high and high school classes six years later. Only 6 extremely popular children averaged among the top five nomination getters in classrooms. In other words these original children were not as extremely popular in the 1988 sample. However, when their mean nomination scores were compared with the mean nomination scores of the top five students in the respective classes, the ten original extremely popular students ($\bar{X}$ = 37.6) were lower but not significantly different from the top five students ($\bar{X}$ = 44.65, t= 1.25 $p> .1$). This again shows that the extremely popular children in elementary school do not necessarily maintain that extreme popularity through high school. Nevertheless, they still are more popular than their average peers and are close to being among the five most popular students in each of their classes.

5. To look for consistencies over time, the data from 1982 were correlated with the data from 1988 for each of the children. There was very little predictive consistency from 1982 to 1988 in the correlation matrices. Teachers' ratings of the children's cognitive skills in 1982 did correlate with the teachers' 1988 ratings (r =.49, $p< .04$). The 1982 teachers' ratings of social-

emotional abilities also correlated moderately with the 1988 teachers' ratings of cognitive skills ($r = .43$, $p < .08$). Table 4 shows the most surprising results to unfold so far. The teachers' ratings of the children in 1982 correlated with a wide variety of self-ratings by the children in 1988. The high school teachers' ratings of these children did not show any significant correlations with the children's self-ratings. High school teacher, no doubt, do not have the chance to know their students as well as elementary teachers. The correlations between self-ratings and 1982 teachers' ratings are particularly interesting because in 1982 the children's self-ratings, in comparison to other measures shown in Table 2, were not as highly correlated with the other variables in the study. In 1982 most of the younger children seemed to think highly of themselves. By the time they are in secondary schools, their self assessments are in line with their earlier teachers' perceptions. We are not sure why this occurs. The immediate hypothesis is that a Pygmalion effect may be occurring. The students have become what the teachers expected. However, consistency of the early data would not tend to support this. It is more likely the self-concept of the students in adolescence finally takes the evaluations of others into account and is balanced with self-perceptions. It must be remembered that these were highly selected students and these results may not hold true for the population on the whole.

We are analyzing the data further to see if higher order statistical procedures can help us sort out some of these unexpected inconsistencies and surprising consistencies.

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Table 1

T-Tests on Mean Scores

	$\bar{X}$ MEAN EPOP (N)	$\bar{X}$ MEAN R (N)	S.D. EPOP	S.D.R	T-VALUE	d.f.	Sig.
IQ	106 (19)	100 (32)	10.25	9.58	1.99	49	.05
ST	54.1 (19)	17.2 (37)	17.8	15.7	7.94	54	.0001
TMEAN	3.3 (19)	2.8 (37)	.26	.51	5.0	54	.0001
NMEAN	3.4 (19)	2.9 (37)	.26	.43	4.9	52	.0001
CMEAN	3.3 (19)	3.2 (37)	.21	.31	2.08	48	.04

IQ = Intelligence Quotient

ST = Sociometric Test

TMEAN = Teacher Mean

NMEAN = Naturalistic Observer Mean

CMEAN = Child Mean

EPOP = Extremely Popular

R = Randomly Chosen

Table 2

Multitrait Multimethod Matrix

	TINT	TSOCEM	TSOC	TPHYS	TPOS	NINT	NSOCEM	NSOC	NPHYS	NPOS	CINT	CSOCEM	CSOC	CPHYS	CPOS
TINT+ (see next page)															
TSOCEM	.77														
TSOC	.73	.66													
TPHYS	.67	.54	.73												
TPOS	.58	.36	.48	.59											
NINT	.73	.56	.60	.52	.61										
NSOCEM	.59	.70	.58	.51	.36	.74									
NSOC	.66	.62	.72	.53	.42	.77	.76								
NPHYS	.64	.61	.58	.71	.48	.61	.70	.71							
NPOS	.36	.23	.23	.40	.81	.41	.30	.30	.37						
CINT*	.40	.36	.13	.64	.29	.36	.25	.22	.19	.30					
CSOCEM*	.38	.46	.20	.21	.15	.26	.30	.32	.27	.16	.68				
CSOC*	.43	.34	.55	.40	.32	.52	.49	.54	.43	.09	.25	.32			
CPHYS*	.33	.34	.39	.50	.30	.28	.34	.36	.43	.05	.31	.40	.61		
CPOS*	.37	.17	.36	.51	.52	.54	.35	.43	.44	.41	.18	.02	.49	.33	
ST (n=56)	.55	.54	.57	.55	.44	.44	.40	.57	.53	.31	.05	.17	.32	.30	.31
IQ (n=54)	.48	.27	.38	.47	.31	.37	.17	.27	.19	.22	.22	.00	.36	.09	.38

*All correlations involving child's self ratings have n = 50
All other cells have n = 56

For n = 50	For n = 56
$p < .01 = .36$	$p < .01 = .34$
$p < .001 = .45$	$p < .001 = .42$
$p < .0001 = .51$	$p < .0001 = .49$

TABLE 3

Comparison of 1988 Extremely Popular (EPOP) with Randomly Selected (R)

TEACHER RATINGS-AVERAGE OF BOTH TEACHERS

VARIABLE	N=10 MEAN EPOP	N=8 MEAN R	s.d. EPOP	s.d. R	t-VALUE	P<
INTELLIGENCE	2.61	1.81	.795	.664	2.26	.038*
SOCIAL EMOT.	2.74	2.05	.578	.558	2.57	.02*
SOCIAL	2.52	1.99	.877	.482	1.55	.14
PHYSICAL	3.12	2.11	.703	.296	4.11	.001**
POPULAR	7.05	1.00	6.20	1.75	2.94	.014*
SOCIOMETRIC RATINGS-AVERAGE OF BOTH CLASSES						
LIKE	4.00	2.44	2.07	1.40	1.82	.087
ENJOY	3.50	2.56	1.91	1.70	1.08	.295
SMART	4.05	0.69	5.123	1.07	2.02	.071*
STUDY	4.70	1.44	2.26	0.73	4.29	.001**
ATTRACT	10.25	2.06	6.08	2.14	3.96	.002**
ATHLETIC	4.20	1.56	5.24	3.06	1.26	.227
POPULAR	7.05	1.00	6.20	1.75	2.94	.014*
TOTAL NOM.	37.60	11.88	16.06	9.54	3.99	.001**

TABLE 4

CORRELATION MATRIX
Comparison Of 1982 Teachers Ratings With 1988 Child's Self Ratings

		CHILDS SELF RATINGS 1988 N=18			
		INTELLIGENCE	SOC-EMOT	SOCIAL	PHYSICAL
1982 TEACHER RATINGS	INTELLIGENCE	.40 P<.10	.37 P<.10	.30	.25
	SOC-EMOT	.36* P<.05	.46* P<.05	.05	.11
	SOCIAL	.28 P<.1	.44* P<.07	.27	.25
	PHYSICAL	.33 P<.09	.54* P<.02	.48* P<.05	.54* P<.02
	POSSESSIONS	.27	.61** P<.01	.23	.18